

# Mahdi Taherahmadi

## Curriculum Vitae

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### Research Interests

- Deep Learning
- Convolutional Neural Networks
- General Image Classification
- Cognitive Robotics
- Philosophy of Mind

### Education

- 2013–2017 **Bachelor Of Technology In Computer Science And Eng,**  
(expected) *Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran.*
- 2009–2012 **Diploma in Mathematics and Physics,** *Aboureyhan, Tehran.*

### Research Experience

- March,2016– **Head Software Developer,** *Team S.O.S. vr, Cognitive Robotics Lab, Computer Engineering department, Amirkabir University of technology.*  
Present RoboCup Rescue Virtual Robot competition. based on ROS Framework. Involving SLAM, Robot Navigation, Human Recognition, Multi Agent Cooperation & 3D Simulation fields.  
<http://sosvr.github.io>
- October,2015– **Research assistant,** *Cognitive Robotics Lab, Computer Engineering department,*  
Present *Amirkabir University of technology.*
- July,2015– **Research assistant,** *CNN group, Computer Engineering department, Amirkabir*  
Present *University of technology.*  
Convolutional Neural Networks With Attention Layers implementation with Theano framework, Based on GPU .  
<http://ceit.aut.ac.ir/cnnngroup>
- July,2015– **Software Developer,** *IMAV team, electrical engineering department, Amirkabir*  
March,2016 *University of technology.*  
Image processing, shape recognition, real time object tracking, quadcopter UAV Simulation
- July,2013– **Software Developer,** *AUT ROBOTICS RESEARCH CENTER (ARC), Tehran,*  
Sept,2014 *Iran.*  
Member of AUTMAN Humanoid Robotic Team, Cognition section, monte carlo Localization Development

### Teaching Experience

- Spring 2016 **Teaching Assistant,** *Engineering Statistics, Dr. AmirHaery,*  
Computer Engineering department, Amirkabir University of technology.

- Spring 2016 **Teaching Assistant**, *Discrete Structures*, Dr. Fallah,  
Computer Engineering department, Amirkabir University of technology.
- Fall 2015 **Teaching Assistant**, *ROS (Robot Operating System) Framework and Linux pre-requisites*, Dr. AhmadiPajouh,  
Medical Engineering department, Amirkabir University of technology.
- Fall 2015 **Teaching Assistant**, *Data Structures & Algorithms*, Dr. Dehghan,  
Computer Engineering department, Amirkabir University of technology.
- Fall 2015 **Teaching Assistant**, *Principles of Programming Languages (C)*, Dr. Shiry,  
Computer Engineering department, Amirkabir University of technology.
- Spring 2015 **Teaching Assistant**, *Advanced Programming (JAVA)*, Dr. Pourvatan,  
Computer Engineering department, Amirkabir University of technology.
- Fall 2014 **Teaching Assistant**, *Principles of Programming Languages (C)*, Dr. Shiry,  
Computer Engineering department, Amirkabir University of technology.

## Work Experience

- July,2015– October,2015 **Back-End Developer**, ZOODFOOD COMPANY, IIG (*Internet Investments Group*),  
Vanak sq, Tehran.  
Python, JS, PHP, Symfony, Git, Redmine.
- August,2013– December,2014 **Front-End Developer & Designer**, RAPNA, Roshd Science & Technology Center,  
Tehran.  
HTML, CSS, JS, WordPress, Illustrator, Git.

## Achievements

- RoboCup 2016 **Third place** of Rescue Simulation Virtual Robot league, Leipzig, Germany
- RoboCup 2015 **Second place** of technical challenge at Teen size humanoid league, Hefei, China
- RoboCup 2015 **Third place** of Soccer challenge at Teen size humanoid league, Hefei, China
- 2013 **Nationwide University Entrance Exam 2013**. Ranked in the top 0.5% among all applicants **ranked 1162**.(out of 300000+ participants)

## Projects

- Spring 2016 **S.O.S. vr Base Code** Implementation of Base code and Related Components, ROS modules, launch files and Robot Models for RoboCup Rescue Virtual Robot Competition simulated in GAZEBO environment and based on ROS framework  
<http://SOSvr.github.io>
- Fall 2015 **Ice-Fire AI Challenge** Implementation of a Multi-agent Player Algorithm For Ice-Fire game artificial intelligence Challenge Held at Sharif University of Technology
- Spring 2015 **Motion Planner** implementation of graph based shortest path and motion planner using A\* algorithm. Design Algorithm courses final project

- fall 2014 **Huffman coding** implementation of Huffman as an entropy encoding algorithm used for lossless data compression. Data structures & algorithms courses final project
- Summer 2014 **NikroComputer Saipa ErgoBan (Saipa Motor Corporation)** data base & data analysis client desktop application, written in java, powered by students of AUT, Ahamd Asadi, Saeid Dadkhah, Sajjad Rahnama, Taher Ahmadi Licenced by RAPNA Co.(RAPNA.net)
- spring 2014 **Joumoung (The Strategy Game)** Developed a Simple Strategy Game Using Java GUI. Advanced programming courses final project
- Fall 2013 **Assembler** Developed a Simple Assembler which generates the output (assembly code) regarding to a Simplified C program as a input. Principles of programming courses final project

## Volunteer Experience & Position of Responsibility

- 2016 **Leader** of Team S.O.S vr  
RoboCup Rescue Virtual Robot Competition Second Place.
- 2016 Presenter at 8th Linux Festival - Cuda, Caffe, ROS & Docker  
<https://linuxfest.ir/>
- 2016 lecturer and Member of 8th Linux Festival Organization team
- 2015 lecturer and Member of 7th Linux Festival Organization team
- 2015 **Founder** of Cognitive Robotics Lab, Computer Engineering department, Amirkabir University of technology
- 2013-2015 Editor at Pouyesh magazine, CEIT students association
- 2014 Chief Editor of 0&1 magazine, CEIT Students Scientific Chapter

## Languages

- Persian Mother Tongue
- English Fluent
- Turkish Fluent  
(Azeri)
- Arabic Moderate

## Technical skills

- Languages Expert in: C, C++(STL), Java  
Familiar with: Python, Matlab.
- Tools, Expert in: Linux, ROS, Git
- Frameworks Familiar with: numpy, scikit, matplotlib, Theano, Blocks, Caffe, OpenCV.
- & Operating Systems